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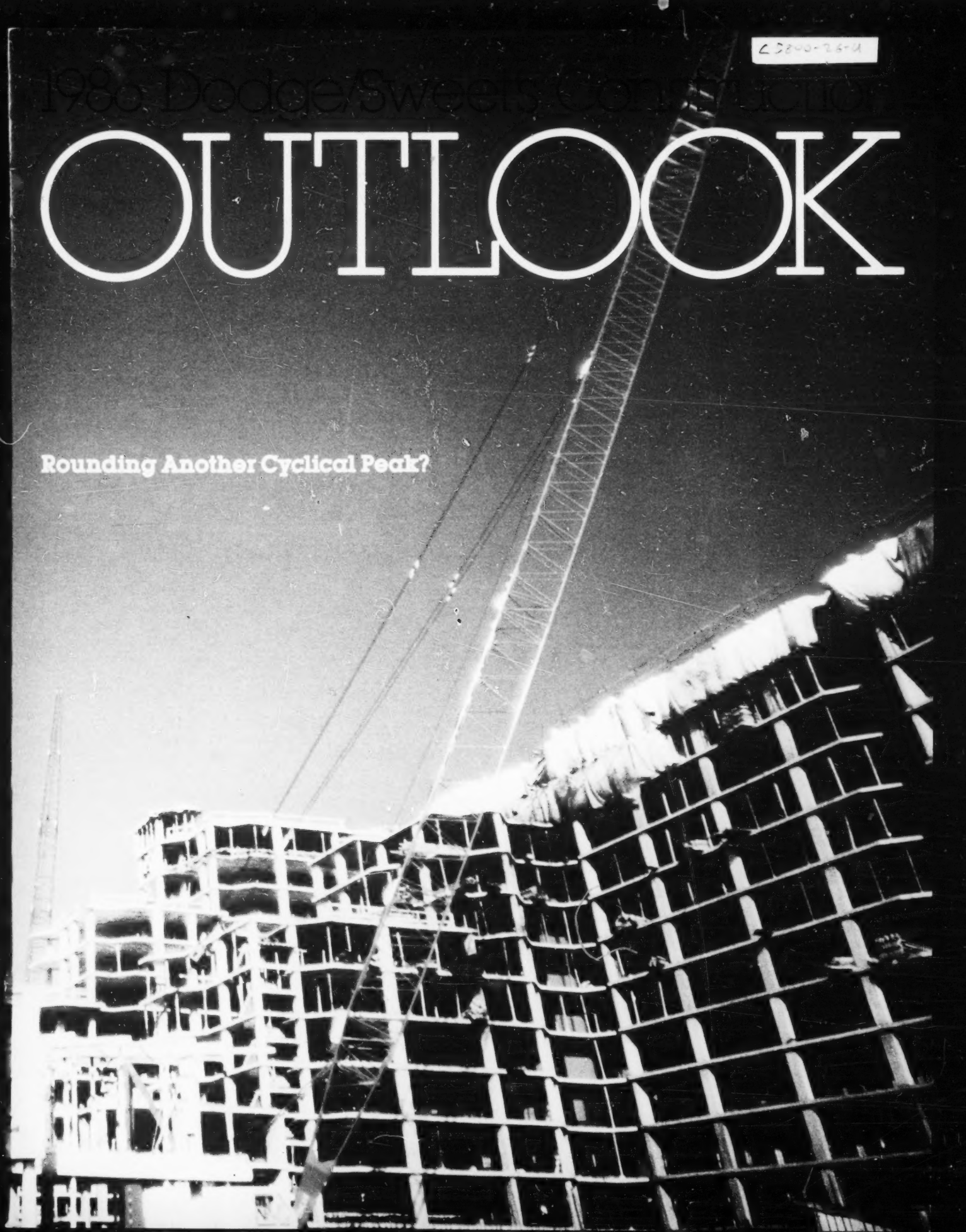
1986 Dodge/Sweets Construction

OUTLOOK

Rounding Another Cyclical Peak?

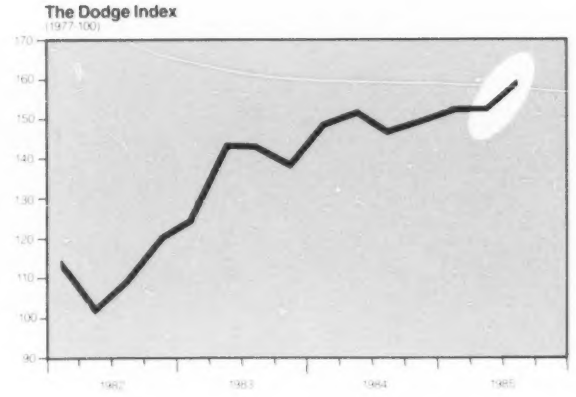


Rounding Another Cyclical Peak?

In Peak Form

With thirteen quarters of expansion behind it, the construction market is showing renewed vigor at a time when most building cycles have begun to fade. No single event explains this late burst of contracting strength. It's more a matter of several things coming together in 1985: the fall of interest rates, the release of blocked highway funds, possibly even the anticipation of tax reform. As a result, no one category of construction is particularly "hot," but collectively the building market is sizzling.

The seasonally-adjusted Dodge Index of construction contract value (1977 = 100) crossed the 160 threshold last March and seems to have taken up residence there. Mae West liked to say "Too much of a good thing can be...wonderful," but experience with the notoriously cyclical building market teaches that all periods of expansion have their limits. The point of departure for the *Dodge/Sweet's Construction Outlook* for 1986 is to determine just how vulnerable this three year old building cycle is.



Beyond The Peak

The construction sector will be responding to more than the usual number of issues in 1986. The familiar ones—the economy's growth (or the absence of it), interest rates, the Federal/local tradeoff—will be making room for some newer ones: Congress' recent commitment to deficit reduction, and the Administration's commitment to tax reform.

Getting a fix on a few sensitive political issues takes a lot of the guesswork out of economic forecasting. Here are some critical assumptions about the political and economic environment for the construction/building materials industry for the near future:

1. *The economy will be mired in "growth recession" for another year.* Even discounting the trade gap, economic conditions are not conducive to strong growth. Greater emphasis on deficit reduction means that fiscal policy must become more restrictive. Interest rates are stabilizing (temporarily) at a level that remains uncomfortably high. The acceleration of the employment shift from manufacturing to services is depressing productivity by lowering the capital/labor ratio at a time when excess capacity already abounds.

Against this cheerless background, the recent widening of the trade gap and the stampede to protectionism are additional handicaps to renewed growth. The reversal of exchange rates suggests that our trade crisis may have turned the corner, but international competition will continue to be a drag on the manufacturing sector.

In 1986, real GNP growth is likely to plod along at close to the same 2½ percent rate as it has in 1985, with only an outside shot at 3 percent. For the construction market, this outlook carries both negative and positive implications: there is little incentive for manufacturers to increase their capital spending in 1986; there is little justification for the Federal Reserve to tighten credit in 1986.

2. *Long-term interest rates are on a declining trend.* Interest rates are gradually winding down from their 1981-82 extremes toward a level that is more consistent with inflation. There is good reason to anticipate continued general movement in this direction: artificially high interest rates not only inhibit the economy's growth, but they contribute to the trade gap by sustaining the overvalued dollar. Inflation is no longer a serious threat.

Short-term *cyclical* behavior of the credit markets persists, however, and the sharp decline of mortgage rates since the Fed's year-ago easing is now stabilizing—a reflection of the Fed's more recent position of neutrality. In 1986, a combination of weak loan demand and central bank accommodation presents little risk of rising rates, and leaves room for some further small decline before the next cyclical upswing.

From both a short-and longer-term viewpoint, the prospect of reduced volatility around a declining trend of interest rates is the best thing the construction sector has going for it.

3. *Government spending for construction will not increase beyond its current level for the next two years.* Commitment to the goal of deficit reduction will ultimately require more than just a "freeze" on Federal non-military spending. For the next few years, however, austerity is the key to a deficit reduction program that calls for an initial shrinkage of $55 billion in fiscal year 1986—without raising taxes.

A cap on Federal domestic spending implies outright cuts in construction outlays in order to offset the inevitable increase in entitlements. Higher state and local spending can be expected to fill the void, keeping total public construction outlays at least even with 1985.

4. *Tax reform is the single biggest risk the construction industry faces in 1986.* The Administration's program for tax reform (or any of the various counter-proposals) could be the catalyst that ends the boom in commercial real estate development.

Several features of "Treasury II"—the loss of tax exempt status for industrial and mortgage revenue bonds, the treatment of the sale of depreciable property as ordinary income instead of capital gain, the repeal of the "at risk" rule—would detract from the current advantages of real estate as an investment. The greatest risk, however, is the lengthening of depreciation on commercial buildings from the highly favorable terms available since 1981 through ERTA.

Considering the President's personal involvement in the tax reform issue, it is safest to assume that a modified version of Treasury II (watered down by special interests) will surface early in 1986. For now it is enough to expect that depreciation will be lengthened. Once it is, the office building market will no longer be the same.

1986: A Turning Point?

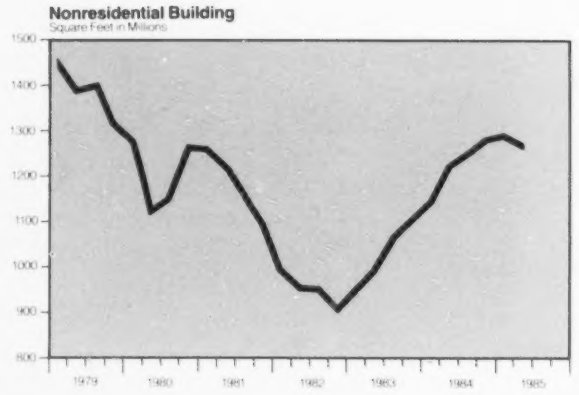
Two handicaps (a sluggish economy and the Federal budget freeze), *one decided advantage* (a favorable interest rate outlook) *and one question mark* (tax reform) constitute a mixed environment for the construction industry in 1986. The most vulnerable market—nonresidential building—will be considered first.

Potentials/Limits/Risks

Since early 1985, contracting for nonresidential building has soared above 1.3 billion square feet more often than it has fallen short of that lofty mark. As the market strives to reach 1.4 billion—the peak of the last building cycle—the realities of the mid-1980s are saying that it will be necessary to settle for something less this time around.

Although a few individual categories of nonresidential construction are currently breaking old records (office building is the outstanding example), neither *total* commercial/industrial building nor institutional building will achieve its former high before the next cyclical decline sets in. Stagnation of the economy's industrial sector has already reversed the recovery of manufacturing building. Contracting for stores and shopping centers is being held back by a housing market that can no longer rise to its former heights. The scarcity of public funds for nonmilitary purposes is inhibiting institutional building. Together, these constraints are preventing the full development of the nonresidential building cycle, and this market—currently stronger than at any other time in the 1980s—is beginning to lose momentum. After three years of cyclical expansion, total nonresidential contracting will peak in 1985 at just under 1.3 billion square feet, a volume nearly 10 percent lower than the last two highs.

As commercial and industrial building winds down over the next several years, events are likely to provide some new variations on the "standard" cyclical decline. Initially, the downturn will be dominated by office building as tax reform precipitates an overdue correction in this overstimulated market. And with the economy limping its way through a period of sluggishness that will extend through most of 1986, there will be little opportunity for the expansion of other commercial and industrial building activity to cushion an abrupt weakening of the vulnerable office market. Consequently, contracting for total commercial and industrial construction could drop off by as much as 20 percent over the next two years—most of it confined to the office category.



Industrial Construction Of all the individual commercial and industrial building types, the one with the most potential for expansion is manufacturing building. In 1986, that potential will go largely unrealized.

Responding to the economy's vigorous 1983 recovery, and encouraged by ERTA's investment incentives, contracting for industrial construction surged 70 percent between 1983:I and 1984:IV, from a record low of only 89 million square feet to a respectable 152 million. As it always does, contracting for manufacturing construction was tracking industrial capacity utilization closely. The rise of capacity utilization during 1983 and 1984, from 69 percent to 83 percent, easily explains the early strength of construction contracting. And since capacity utilization typically reaches 86 or 87 percent at the peak of its cycle, there was, and still is, potential for further expansion of contracting to as much as 200 million square feet. But instead of advancing toward this potential, both capacity utilization and construction contracting have been slipping backward since mid-1984.

If the original reason that the industrial sector got off the fast track in the middle of 1984 was monetary restraint (the Fed tightened credit early last year in order to check runaway expansion), that explanation doesn't stand up in 1985. Credit has been eased, and a more fundamental issue has surfaced: the flood of imported goods that has put domestic producers at a competitive disadvantage for which there is no quick fix. Exchange rate intervention and interest rate equalization are steps that will gradually ease the plight of U.S. manufacturers, but meanwhile, industry's conditioned reflexes—capital spending cuts and protectionism—stand in the way of the recovery of industrial construction.

Stores/Warehouses Because the demand for retail facilities is primarily a derivative of homebuilding, much of next year's contracting for stores, shopping centers, and warehouses is being determined in the housing market right now. The prospect for continued strong residential building (as long as mortgage rates remain at their current level) implies that the present volume of retail building (425 million to 475 million square feet) can stretch through 1986 before tailing off.

By the same token, housing activity serves as a limit, as well as a stimulus, to retail building. Housing starts, now in their third consecutive year at close to 1.75 million dwelling units, are heading for a fourth year of approximately the same rate of building in 1986. A similar steadiness can be seen in retail building, where volume remains solid at 475 million square feet, but isn't likely to go higher unless housing leads the way.

Because the current ratio of retail-to-residential building square footage is only slightly higher than it was prior to ERTA, it can be concluded that accelerated depreciation has *not* been a major stimulus to store building (as it has been to offices). Even so, the proposed changes in tax regulations are likely to take some of the edge off this building market next year. A decline of about 5 percent is a reasonable "discount" for the effect of tax reform on retail contracting, putting 1986 volume at an estimated 450 million square feet.

Offices Will 1986 be the year when the office "bubble" bursts? Probably not. More likely, 1986 will be the beginning of a return to reality that could mean several years of reduced building ahead.

Evidence continues to pile up in support of the case for a major correction in the overextended office building market. Five years of building (1981 through 1985) at an average rate of 300 million square feet per year for a market that can digest—at best—250 million square feet annually has driven the vacancy rate up to three times its 1981 level. To sustain this volume of building, developers have shifted from Southwest to Northeast, from downtown to suburbia, from high rise to low rise. Rental offers for the accumulating vacant space look like distress sales, and many newer buildings are occupied by vacating older ones. Yet the boom goes on unabated: a near-record 310 million square feet of space is being added in 1985.

Obviously, it still pays to keep adding to the stock of office buildings which is already 15 percent vacant. And it will continue to pay as long as the tax write-off provided by 18 year depreciation fills the void left by uncollected rent on vacant space.

Tax reform could trigger an overdue adjustment of supply to demand. If tax reform reclaims some of the subsidy that ERTA

made available, rents will have to rise, or building must be curtailed. And because rents are limited by the vast excess of empty space, the only short-run option is to reduce new construction until the vacancy rate falls enough to establish a new supply/demand equilibrium that is consistent with revised tax laws.

Although tax reform is still only a gleam in the President's eye, it is tentatively assumed that the passage (early in 1986) of a diluted version of the "Treasury II" reform package will bring about the end of the five year office boom. Any adjustment to tax reform has two elements: (1) the need to reduce the rate of building from its current 300-plus million square feet per year to a rate that more closely matches the growth of the labor force, and (2) the need to absorb the existing surplus.

Sustainable demand for new office space during the second half of the 1980s—taking into account the demographics of the labor force, its relocation, and the replacement of existing buildings—is estimated at an average of 250 million square feet per year (a five year total of 1.25 billion square feet). It is also estimated that at least 200 million square feet of vacant space are presently available to meet part of this demand. Assuming that the forthcoming market correction will take place over roughly the same amount of time that it required to create the present imbalance (five years), these aggregates imply a *net* demand for new space of just over one billion square feet between 1986 and 1990—an average of only 200 million square feet per year.

Several scenarios can be developed from these numbers, ranging from crash to soft landing. (The "no change" option is available at no extra charge for those who refuse to take tax reform seriously.) A five year adjustment—the soft landing—would take office building down to about 250 million in 1986, leaving the need for further reduction in later years.

Institutional Buildings Contracting for schools, health care facilities, and other public buildings continues to reflect the financial condition of state and local governments: improved over what it was a few years ago, but still not up to the responsibilities being transferred to the states by the Federal government.

With more local funding becoming available, contracting for total institutional building—at just under 290 million square feet in 1985—has recovered by almost 15 percent from its depressed 1982 volume. This improvement can be expected to continue in 1986, but at a slower pace as building activity aligns itself more closely with the demographic requirements of the second half of the decade.

The 1986 Outlook: Down 7 Percent

As the construction cycle approaches its peak, the limits and risks to nonresidential building outweigh the few remaining potentials for further expansion.

Retail building, limited by the continuing stability of the housing market, will do well to sustain current volume for another year. Industrial construction, constrained by sluggish economic growth and excess capacity, is a year away from renewed expansion. Institutional building, dependent as it is on public funding, is capable of only a nominal advance. This leaves office building as the key to change in 1986, and there, all the risk is on the down side.

Tax reform, and the response by the commercial real estate industry to whatever comes of it, are among the least predictable of events. Yet, they will have more to do with the next development in the nonresidential building market than anything else. A conservative forecast of a 20 percent cutback of office building next year, along with continuing support from retail building, and a modest 3 percent gain in institutional building, will leave total 1986 nonresidential square footage 7 percent below the 1985 peak.

The New Localism

The impending "freeze" on Federal nonmilitary spending in fiscal year 1986 is bound to set back the transfer of Federal domestic programs to state and local governments. Originally tagged the "New Federalism" by its Administration proponents back in 1980, this ongoing process has recently been renamed the "New Localism" by the governors and mayors who have inherited the responsibility for the nation's infrastructure.

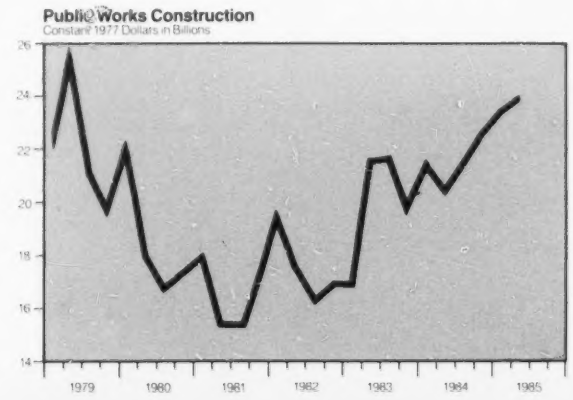
Although the transition hasn't been easy, state and local governments are learning to live with the concept of self-determination. Between 1980 and 1984, budgetary restraint reduced Federal aid from 32 to 24 percent of total state and local revenue. During this withdrawal period, however, state governments boosted taxes enough to support a current level of expenditures that is now 43 percent higher than it was in 1980 (12 percent higher after adjustment for inflation). State/local spending is currently growing at a healthy 8 percent per year, bearing out the conclusion of a recent Princeton University study that "...in many cases, the states have replaced significant amounts of the lost Federal money as programs were placed under their control."

In this context, public spending for the maintenance and development of the nation's infrastructure has experienced its ups and downs since 1980. As might be expected, Federal outlays (in constant dollars) have declined, while state and local government spending has increased, but the tradeoff hasn't been quite that tidy.

On the Federal side of the ledger, *capital* outlays for public works facilities (along with many other domestic programs) were reduced as national priorities favored tax reduction and a major military buildup. Between 1980 and 1984, the Federal government's annual capital outlays for public works programs —in constant prices—shrank by $5 billion. As state/local revenues increased, their infrastructure budgets rose by approximately the same $5 billion by which Federal spending had been reduced. However, because two-thirds of state and local government spending was pre-empted for *operating* costs, their capital outlays failed to offset the Federal cutbacks.

Contracting for public works construction in the first half of the 1980s shows the extent of the progress of this ongoing transition to local self-determination. Total public works construction fell sharply at first, from a pre-1980 peak of $23.4 billion (constant dollars) to $16.5 billion in 1981. Following this decline, contracting recovered gradually, almost regaining its former peak by 1985.

Transportation-Related Construction Not long ago, transportation-related construction, a grouping of public works categories that consists mainly of highway construction, but also includes bridges, mass transit, and airports, was highly predictable. Year-in, year-out growth of the Federal Highway



1986 National Estimates Dodge Construction Potentials

Nonresidential Buildings	1985 Preliminary	1986 Forecast	Percent Change 1986/85
Floor Area (millions of square feet)			
Office Buildings	310	250	−19
Stores and Other Commercial	548	507	− 7
Manufacturing Buildings	140	145	+ 4
Total Commercial and Mfg.	998	902	−10
Educational	92	95	+ 3
Hospital and Health	70	70	—
Other Nonresidential Buildings	127	134	+ 6
Total Institutional and Other	289	299	+ 3
Total Nonresidential Buildings	1,287	1,201	− 7
Contract Value (millions of $)			
Office Buildings	$23,075	$19,400	−16
Stores and Other Commercial	21,475	20,300	− 5
Manufacturing Buildings	6,900	7,525	+ 9
Total Commercial and Mfg.	$51,450	$47,225	− 8
Educational	$ 8,175	$ 8,750	+ 7
Hospital and Health	7,450	7,675	+ 3
Other Nonresidential Buildings	10,200	11,125	+ 9
Total Institutional and Other	$25,825	$27,550	+ 7
Total Nonresidential Buildings	$77,275	$74,775	− 3

Residential Buildings	1985 Preliminary	1986 Forecast	Percent Change 1986/85
Dwelling Units (thousands of units*)			
One-Family Houses	1,005	1,075	+ 7
Multifamily Housing	720	650	−10
(*F.W. Dodge basis)			
Total Housekeeping Residential	1,725	1,725	—
Floor Area (millions of square feet)			
One-Family Houses	1,567	1,677	+ 7
Multifamily Housing	687	627	− 9
Nonhousekeeping Residential	97	88	− 9
Total Residential Buildings	2,351	2,392	+ 2
Contract Value (millions of $)			
One-Family Houses	$70,575	$79,125	+12
Multifamily Housing	28,200	26,950	− 4
Nonhousekeeping Residential	6,900	6,600	− 4
Total Residential Buildings	$105,675	$112,675	+ 7

Nonbuilding Construction	1985 Preliminary	1986 Forecast	Percent Change 1986/85
Contract Value (millions of $)			
Transportation-related Construction	$23,925	$23,875	—
Water-related Construction	12,625	12,725	+ 1
Total Public Works	$36,550	$36,600	—
Utilities	$2,000	$2,000	—
Total Nonbuilding Construction	$38,550	$38,600	—

All Construction	1985 Preliminary	1986 Forecast	Percent Change 1986/85
Contract Value (millions of $)			
Total Construction	$221,500	$226,050	+ 2
Dodge Index (1977 = 100)	157	160	

Total Construction Contract Value

Seasonally adjusted annual rates in billions of dollars

Year/Quarter		Nonresidential Building	Residential Building	Nonbuilding Construction	Total Construction
1985	I	$74.8	$102.4	$38.2	$215.4
	II	76.3	99.2	40.1	215.6
	III	79.0	107.8	38.1	224.9
	IV	79.0	113.3	37.8	230.1
1986	I	$76.3	$113.2	$38.4	$227.9
	II	75.2	112.9	38.5	226.6
	III	74.0	112.6	38.6	225.2
	IV	73.6	112.0	38.9	224.5
1985		$77.3	$105.7	$38.5	$221.5
1986		$74.8	$112.7	$38.6	$226.1
% Change		− 3	+ 7	—	+ 2

Construction Contract Value in Constant Prices

(Millions of 1977 Dollars)

	1985 Preliminary	1986 Forecast	Percent Change 1986/85
Nonresidential Buildings	$42,350	$39,325	− 7
Residential Buildings	60,150	61,350	+ 2
Nonbuilding Construction	24,025	23,075	− 4
Total Construction	$126,525	$123,750	− 2

1986 Regional Estimates Dodge Construction Potentials

Northeast — CT, ME, MA, NH, NJ, NY, PA, RI, VT	1985 Preliminary	1986 Forecast	Percent Change 1986/85
Contract Value (millions of dollars)			
Nonresidential Buildings			
Commercial and Manufacturing	$ 8,100	$ 7,800	– 4
Institutional and Other	4,425	4,800	+ 8
Total	$12,525	$12,600	+ 1
Residential Buildings			
One-Family Houses	$10,775	$11,775	+ 9
Multifamily Housing	4,625	4,075	–12
Nonhousekeeping Residential	1,000	950	– 5
Total	$16,400	$16,800	+ 2
Nonbuilding Construction			
Transportation-related	$ 4,525	$ 4,525	—
Water-related	2,325	2,475	+ 6
Utilities	325	300	– 8
Total	$ 7,175	$ 7,300	+ 2
Total Construction	$36,100	$36,700	+ 2

South — AL, AR, DE, DC, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV	1985 Preliminary	1986 Forecast	Percent Change 1986/85
Contract Value (millions of dollars)			
Nonresidential Buildings			
Commercial and Manufacturing	$20,800	$18,650	–10
Institutional and Other	9,950	10,350	+ 4
Total	$30,750	$29,000	– 6
Residential Buildings			
One-Family Houses	$30,850	$33,825	+10
Multifamily Housing	11,700	11,250	– 4
Nonhousekeeping Residential	2,875	2,800	– 3
Total	$45,425	$47,875	+ 5
Nonbuilding Construction			
Transportation-related	$ 8,500	$ 8,400	– 1
Water-related	4,750	4,825	+ 2
Utilities	700	750	+ 7
Total	$13,950	$13,975	—
Total Construction	$90,125	$90,850	+ 1

North Central — IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI	1985 Preliminary	1986 Forecast	Percent Change 1986/85
Contract Value (millions of dollars)			
Nonresidential Buildings			
Commercial and Manufacturing	$ 9,725	$ 8,950	– 8
Institutional and Other	5,400	5,550	+ 3
Total	$15,125	$14,500	– 4
Residential Buildings			
One-Family Houses	$11,175	$13,050	+17
Multifamily Housing	3,750	3,750	—
Nonhousekeeping Residential	875	875	—
Total	$15,800	$17,675	+12
Nonbuilding Construction			
Transportation-related	$ 6,375	$ 6,350	—
Water-related	2,500	2,500	—
Utilities	275	250	– 9
Total	$ 9,150	$ 9,100	– 1
Total Construction	$40,075	$41,275	+ 3

West — AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY	1985 Preliminary	1986 Forecast	Percent Change 1986/85
Contract Value (millions of dollars)			
Nonresidential Buildings			
Commercial and Manufacturing	$12,825	$11,825	– 8
Institutional and Other	6,050	6,850	+13
Total	$18,875	$18,675	– 1
Residential Buildings			
One-Family Houses	$17,775	$20,475	+15
Multifamily Housing	8,125	7,875	– 3
Nonhousekeeping Residential	2,150	1,975	– 8
Total	$28,050	$30,325	+ 8
Nonbuilding Construction			
Transportation-related	$ 4,525	$ 4,600	+ 2
Water-related	3,050	2,925	– 4
Utilities	700	700	—
Total	$ 8,275	$ 8,225	– 1
Total Construction	$55,200	$57,225	+ 4

Trust Fund at close to 5 percent translated directly into steady growth of construction.

Not lately. In 1983, contract value leaped 24 percent following the passage of the Surface Transportation Assistance Act which added 5¢ per gallon to fuel user taxes. The initial impact of this $5 billion/year bonus for transportation construction spilled over into 1984, resulting in an additional 13 percent gain. And that year's increase might have been even bigger had it not been for the ICE hassle—the holdback of Federal highway funds due to legislative wrangling over what should have been routine approval of Interstate Cost Estimates. Resolution of the ICE issue led to further spillover of Federal funding into 1985 and another above-average gain.

The pendulum is now swinging the other way. In 1986, transportation-related construction will be subject to two constraints—one general, and one specific. In addition to the general budgetary freeze that will limit all public works spending next year, there is a need to delay disbursements from the Highway Trust Fund for a while in order to let receipts catch up. Erratic authorizations from the Fund during the last two years have been exceeding its revenues at a rate that would deplete the Fund by 1990. For this reason, more than for the nobler purpose of deficit reduction, the 1986 budget provides that commitments for highway/bridge construction will not exceed the 1985 amount (a 10 percent holdback from the authorized 1986 level).

Contract value (in current dollars) of total transportation-related construction in 1986 is estimated at $23.9 billion, unchanged from the 1985 amount.

Water-Related Construction This group of public works construction categories includes everything concerning the nation's water resources: control, storage, transmission, treatment, and use. Water resource *development* has always been an almost exclusively Federal responsibility, while water *supply* is almost as much a local activity. Waste water *treatment* is an ambiguous mixture of Federal and local effort.

Each of these three aspects of water-related construction is reasonably predictable, although each will be determined separately. Spending by the Federal agencies which contract for most of the nation's *water resource development* (Corps of Engineers; Bureau of Reclamation) is likely to be held just where it has been, or perhaps reduced marginally in the spirit of deficit reduction. Contracting for *water supply* is largely a local option, usually geared to—but lagging—the volume of general building activity. With the building cycle now reaching its peak, water supply construction still has another year of expansion ahead.

EPA's construction grants program is due to expire soon, and two options are available: to renew the Clean Water Act or to phase it out in favor of a revolving loan fund. Both Congress and the Administration incline toward phase-out, but differ on the length of time in which it should happen (Congress favoring a slower transition). Despite this difference, there seems to be little disagreement about 1986, when a modest further reduction of EPA construction grants is indicated.

The combined total of all water-related construction in 1986 is forecast at $12.7 billion (in current dollars), little changed from this year's value.

The 1986 Outlook: Down 4 Percent

With domestic Federal spending being capped in fiscal year 1986, "controllable" budget items like public works construction will be restrained in order to offset unavoidable increases in the so-called "uncontrollables." Rising state and local government expenditures for public works will largely offset restraint at the Federal level, leaving next year's current dollar contract value even with 1985's total of $36.6 billion.

In constant (i.e., inflation adjusted) dollars, however, 1986 public works construction contracting will decline 4 percent—the first setback since 1981.

Federal Public Works Program

For several decades, the Federal government has taken the lead in underwriting the development of the nation's infrastructure. States and municipalities are primarily responsible for administering the funds made available through a variety of Federal programs, overseeing the actual construction and maintaining the completed projects. Although the "New Federalism" is now putting more responsibility on local government to meet their own needs, Federal programs remain the primary source of infrastructure funding. In 1986, Federal grants to state and local governments for public works will amount to just under $19 billion, and an additional $2 billion is budgeted for *direct* Federal public works construction.

Transportation-Related Programs

Three user-fee supported programs within the Department of Transportation provide grants to states and localities for transportation-related construction. The largest, the Federal Highway Program, distributes money to states for highway and bridge construction, repair, and replacement. Financed by the revenues of a 9-cent-per-gallon Federal gasoline tax, this program will provide over $13 billion in grants during 1986. Matched by states, these funds will generate $19 billion in highway and bridge contracting—more than 50 percent of *total* public works construction.

The Highway Program, which technically expires at the end of 1986, will be reauthorized in Congress' next session. Current proposals would extend the user-fee supported program through 1990 without raising the gasoline tax.

Two other DOT grant programs, Airport Improvement and Urban Mass Transit, provide matching grants to localities for transit-related work. The airport program, financed by aviation user fees, will provide $900 million in funds in 1986 for various airport projects. The mass transit program, which receives 1 of 9 cents from the gasoline tax, will allocate $800 million for mass transit work.

Water-Related Programs

Established by the Clean Water Act of 1972, EPA Construction Grants provide funds to municipalities for the construction of waste treatment facilities. Since 1980, the program has been the target of budgetary restraint. In 1986, $2.6 billion in grants will be available, 40 percent of the amount provided 5 years earlier. Current proposals to reauthorize the program would systematically withdraw Federal financing by replacing the grants with a loan program.

The Army Corps of Engineers and Bureau of Reclamation construction programs provide funding for water resource construction such as dams, harbor development, dredging, and flood control. In 1986, the Bureau of Reclamation's $700 million program will deal exclusively with projects in the western United States. The Corps of Engineers will spend $850 million nationwide.

Funding the development of water resources has become increasingly controversial, and major water project proposals are having little success in Washington's climate of austerity. One big obstacle: an equitable basis for sharing the cost with localities.

What Happened To The Housing Cycle?

Two questions that are being asked about the housing market seem contradictory: Why aren't housing starts stronger than they are? Why are housing starts holding up as well as they are? If both questions can be meaningful at the same time, it's a sign that this market is undergoing a transition.

The first question concerns the lack of response in 1985 to a significant decline of interest rates. Not long ago, falling mortgage rates would have triggered a surge of homebuilding. Suddenly, it appears that housing's hypersensitivity to credit conditions has worn off.

The second question concerns the recent departure of homebuilding from its familiar cyclical pattern. Since 1983, housing starts have settled into a remarkably steady groove at close to 1.75 million units per year. And there's a very good chance that this three-year stretch of strong housing activity will go to four in 1986.

Back To Basics

Because the housing market was dominated by volatile interest rates and complex tax shelters during much of the first half of the '80s, the supply of shelter that was provided during that extraordinary era bore little relation to the demand for it. Some consequences: a carryover of pent-up demand for one-family housing from the extremely depressed early years of the 1980s when mortgage rates were prohibitively high; the accumulation of a modest surplus of multi-family housing due to the artificial stimulus provided since 1981 by ERTA. In 1985, the pent-up demand for singles is easing (which partially explains the unenthusiastic response to lower mortgage rates), but tax-sheltered apartment development continues to support the multi-family side of the market at an unrealistic volume.

During the second half of the decade, the forces responsible for the distortions of the early 1980s will be less influential. Mortgage rates are on a declining trend and are showing less volatility. Tax shelters will be losing much of their appeal as the issue of tax reform is addressed in the coming months.

These are *structural changes*. They indicate that it is time to begin giving less weight to the variables which dominated the housing market during the first half of the decade. More consideration must now be given to the underlying determinants of the demand for shelter—demographics, affordability, regionality—as housing output reconnects with housing demand.

Demographics

The rate of household formation, headship, age, and other dimensions of the demographics of the housing market offer a guide to what "should be" the appropriate supply of new shelter. Demographics (need) and housing starts (supply) rarely coincide on a year-to-year basis, but over longer periods a failure to match demand with supply leads to a conspicuous surplus or shortage of housing usually revealed by changes in the vacancy rate.

The housing demographics of the second half of the 1980s point to a "need" for approximately 10 million new shelter units (an average of 2.0 million per year). Shorn of its detail, this expression of the demand side of the housing market is derived as follows:

Shelter Demand, In Millions of Units
Annual Averages 1986-1990

	Minimum	Maximum	Average
Primary Demand (net household formation)	1.3	1.4	1.35
Secondary Demand (replacement of losses from stock)	0.4	0.5	0.45
Discretionary Demand (second homes, vacancies, etc.)	0.2	0.2	0.20
Total Shelter Demand	1.9	2.1	2.00

Assuming that an annual average of 300,000 units of demand will be met by the production of mobile homes (roughly the current volume of output), the yearly total of *conventional* one-family and multi-family units should average approximately 1.7 million units during the period 1986 through 1990—a rate of building that is not much different from the current volume.

Affordability

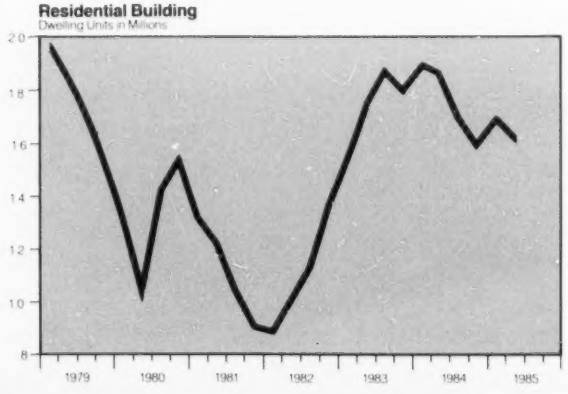
Several important conclusions can be drawn from a comparison of the cost of home ownership with average family income since 1980:

- The sales price of new one-family housing (construction cost plus land) has risen no faster than average family income in the 1980s.
- The "affordability issue" is largely a matter of financing costs.
- Home ownership is more affordable in 1985 than at any time since this decade began.

Though still no bargain by pre-1980 standards, the cost of owning a new home has been trending downward since reaching its all-time peak in 1981. From that time, when the cost of amortizing a conventional 80 percent mortgage soared to 43 percent of gross family income, the combination of declining interest rates, rising incomes, and reduced inflation in building costs has lowered amortization expense to its present 32 percent of income. With interest rates steady (or lower) in 1986, it can be expected that new housing will be slightly more affordable next year. As this trend continues, the housing industry can expect to realize a higher proportion of the potential implied by the market's demographics.

Percent Of Income Required To Purchase A New Home

Year	Average Sale Price	80 Percent Mortgage	Mortgage Rate	30 Year Amortization	Average Family Income	Amortization % of income
1980	$76,400	$61,100	13.8%	$ 8,600	$24,000	35.8%
1981	83,000	66,400	16.7	11,200	25,800	43.4
1982	83,900	67,100	16.1	10,900	27,400	40.0
1983	89,800	71,800	13.2	9,700	28,600	33.9
1984	97,600	78,100	13.9	11,000	31,100	31.4
1985	99,500	79,600	12.7	10,400	32,900	31.6



Regionality

Population migration can generate extra housing demand that is independent of net household formation. This was never more clearly demonstrated than during the highly mobile decade of the 1970s. More recently, however, homebuilding to accommodate population mobility has lost a lot of its momentum.

The turning point of the realignment of building markets from Northeast to Southwest coincided with the prolonged recession of 1980-1982. Since that time, the regional mix of homebuilding has shown a tendency to back away from the great sunbelt shift of the 1970s. In 1985—a year of strong but stable building at the national level—the Northeast and the North Central regions made small but significant gains against the previously booming South and West.

As a general rule, population migration is not expected to be a major source of housing demand during the second half of the 1980s when regional shares of the housing market are forecast to remain relatively stable.

Total Dwelling Units
Regional Shares of U.S. Homebuilding, 1980-1985

	Northeast	North Central	South	West
1980	10.0%	17.1%	47.9%	25.0%
1981	10.7	16.0	49.8	23.5
1982	10.0	14.2	54.4	21.4
1983	10.4	13.3	53.1	23.2
1984	11.4	13.6	49.5	25.5
1985	13.5	14.4	46.9	25.2

The 1986 Outlook: Up 2 Percent

Near-term market conditions appear more favorable to sustaining—even increasing—the volume of one-family building than they do to supporting the shaky multi-family market. As mortgage rates continue to edge down a while longer, total housing starts in 1986 will match this year's estimated 1.725 million unit volume by means of a tradeoff of multi-family housing for more singles. This same total, with its tilt toward one-family units in 1986, will result in a 2 percent gain in square footage next year.

One-Family Homes Mid-1985 experience reveals that homebuyers are not responding to mortgage rates in the 12 to 13 percent range with quite the same enthusiasm that they might have shown a year or two ago. Based solely on the 1980 to 1985 relationship between mortgage rates and one-family homebuilding, the forecast of an 11.7 percent average fixed mortgage rate in 1986 (vs. 12.5 percent in 1985) would yield up to 1,125,000 new starts (F.W. Dodge basis). However, the need to allow for *non*-credit considerations—the depletion of pent-up demand, economic uncertainty, affordability, etc.—reduces the 1986 potential for one-family building to 1,075,000 units, a 7 percent gain nevertheless.

Multi-Family Housing The high-risk part of the housing market is its overstimulated apartment sector. Even so, to be overstimulated is not the same as being overbuilt (as in the case of offices).

Demographics and lifestyles of the 1980s suggest that an average annual volume of about 600,000 multi-family units is appropriate. At the decade's midpoint, the combination of a dearth of building during the 1980-1982 recession, followed by a boom thereafter, has left the cumulative supply of multi-family housing not far from where it ought to be. Despite the high rate of starts drawn forth during the past few years by the incentive of accelerated depreciation, the average annual rate of building for all of the 1980s to date is 610,000 units (F.W. Dodge basis). The recent rise in the apartment vacancy rate is a warning of market saturation, but the current 6.2 percent rate looks manageable when compared with the double-digit rate that prevails in the office market. If an imbalance exists in the multi-family stock, it is in the "mix" of condos and rentals, or in their geographical distribution.

Most of the hazards that tax reform holds for office development apply to apartment building as well—with one important exception. Except in isolated local situations, there is little need for a period of greatly reduced construction to enable the market to absorb its excess supply. A cutback of contracting to an average level of close to 600,000 units per year (including condos) for the balance of the decade—and a general escalation of rental rates on new units—should be the adjustments needed to accommodate tax reform.

In line with the assumptions made about how tax reform will impact real estate investment, it is expected that the multi-family housing market will soon undergo a two-stage adjustment beginning with a 10 percent cutback to 650,000 units in 1986 as it seeks a new equilibrium close to 35 percent of total housing starts.

1986: The Same...Only Different

The "bottom line" of the 1986 Construction Outlook (+ 2 percent in current dollars, –2 percent after adjustment for inflation) gives the outward appearance that not much will change next year. And if the total is all that matters, 1986 does stack up as "more of the same." On the other hand, if the nuances are what count most, here are a few that might require some modifications of current marketing strategies.

Economic and political conditions will give an edge to one-family housing over nonresidential construction in 1986.

- Next year's highest-risk markets are offices and apartments, both vulnerable to the loss of their favored tax status.
- A sluggish economy with mounting excess capacity means that the recovery of industrial construction is a year away.
- It is a near certainty that public works construction will be set back by the 1986 Federal budget "freeze."
- Stable (or lower) interest rates—giving support to homebuilding—are the best thing the building industry will have going for it next year.

Next year will begin a bit better than it finishes.

- This is just another way of saying that after more than three years of continuous expansion, the declining phase of the building cycle can't be put off indefinitely.
- Quarterly estimates of construction contracting (in current dollars) indicate that the cyclical peak will be reached by 1985:IV, but unless interest rates are arbitrarily forced up in 1986, the rate of contracting will still be within 5 percent of that peak a year from now.

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